MELLON

BC-20 DR (Drone)

Combined Corona & IR Detection Imaging System for Drone Remotely Solution

BC-20 DR (Drone) is a corona detection for Drone remote operation. The pan-tilt integrates with the BC-20 UV imager with good seismic resistance and stability. It can accurately locate corona and arc at all times to display and record the number of discharge photons. Its Drone operation is very convenient and cost-effective for HV facilities maintenance.

BC-20 DR corona imaging system can be used for prospective and maintenance live detection of power transmission lines and substations, having a robust, rigid structure and lightweight merits. It is a great tool to help with airborne inspections, surveillance, fixed ongoing observations etc. Fit for gimbaled payloads, Drones and OEM solutions, providing excellent UV automated detection.

Overview

- PTZ systems, adapt to a variety of UAVs
- Automatic focus, easy to observe and detect
- Real-time HD digital signal data stream
- Multi R.O.I. for photos counting
- Flexible flight, remote control & transmission
- Dule F.O.V. switchable by one button
- Alarm threshold to quickly diagnose
- Gain adjustable from 0% ~ 100%

1. FEATURES

High Speed Inspection

In the fast flight speed, it can detect and capture weak corona signal, and the image and video are clear without trailing.

High Sensitivity Detector

High-performance UV detectors are suitable for day and night inspections. No interference from the sunlight.

Integrated Design

The control and data transmission through UAV's interface. The UAV and PTZ UV imager can be controlled. The data stream is displayed on remote control.

Accurate Positioning of Corona

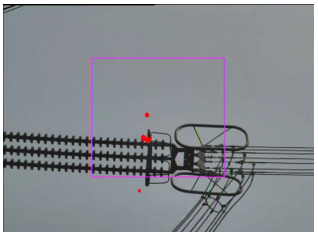
Using high-precision image fusion algorithm, it can accurately locate the corona, arc and partial discharge and form a clear image.

Dual F.O.V.

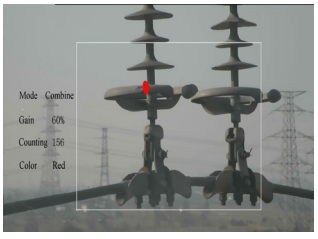
12.6° x 7.2° wide angle F.O.V. for big size objects, and 5° x 3.75° telephoto F.O.V for long distance inspection. One key switch.

Multi R.O.I for photos counting and alarm

5 different region of Interest for photos counting. At the same time, the photon number threshold alarm can be set.



Screen Display



High Resolution

2. OPTIMIZED APPLICATION

ELECTRIC TRANSMISSION TOWER

Saves time and reduces the risk of working at heights

ELECTRIC TRANSMISSION TOWER

A small drone can be selected to observing the whole scene of inspection

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3. TECHNICAL SPECIFICATIONS

UV - OPTICAL PROPERTIES	
Field Of Vision (W x S)	12.6° x 7.2° (Wide Angle) & 5° x 3.75° (Telephoto)
Spectral Range	240nm ~ 280nm
Minimum Discharge Sensitivity	1Pc/10m
Minimum RIV Sensitivity	3.6dBμV (RIV) @ 10m
Minimum UV Sensitivity	2 x 10^{-18} watt/cm^2
Focus Range	1.5m ~ ∞
Focus	Auto
VISIBLE - OPTICAL PROPERTIES	
Minimum Visible Light Sensitivity	0.1 Lux
Focus Range	1.5m ~ ∞
Focus	Auto
DISPLAY AND OUTPUT	
Modes	Combine (UV+VIS), UV only, Visible only
UV / Visible Overlay Accuracy	≤1 mRad
Display	Applicable to the drone control panel
Image	JPG
Video	AVI
Resolution	1280 x 720
Gain	0 ~ 100%
Photons Counting	5 kinds of ROI (Region Of Interest)
Status Information Display	Date, Time, Gains, Counting Number
Alarm Threshold	Provide
PTZ	
Voltage	12v ~ 16v
Dynamic Current	600mA
Temperature	-40°C ~ +60°C
Rotate	Pitch Tilt : ±90, Roll Tilt : ±85, Yaw : ±150, Auto Stabilization
Vibration Angle	Pitch/ Roll Tilt : ±0.02, Yaw : ±0.03
DRONE (OPTIONS)	
Size (mm)	810 x 670 x 430, 430 x 420 x 430(Fold)
Weight	3.6kg; 6.3kg (With Battery)
Maximum Load	2.7kg
Maximum Flight Altitude	5000m
Maximum Wind Speed	15m/s
Maximum Flight Time	55min
Protective Class	IP45
ENVIRONMENTAL	
Operation Temp	-20°C ~ +55°C
Operation Humidity	≤90%RH

4. ACCESSORIES


PTZ


PTZ Adapter


Card with Adapter

SDK


Carrying Case


M300 Drone
(Options)

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